

INTERNATIONAL SEARCH REPORT

International application No

PCT/IB 03/06076

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 B23K26/22 B23K26/03

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B23K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 196 44 121 A (HEWLETT PACKARD CO) 7 May 1997 (1997-05-07) page 2, line 65 - line 67	1,2,4-6, 9-11
A	page 6, line 30 - line 39 page 6, line 51 - line 53 page 7, line 16 - line 19; figures 9,14	7,8
X	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 04, 2 April 2003 (2003-04-02) & JP 2002 346776 A (DENSO CORP), 4 December 2002 (2002-12-04) abstract	1,3,10
X	US 4 906 812 A (NIED HERMAN A ET AL) 6 March 1990 (1990-03-06) column 6, line 9 - line 25; figure 1	1,4,6-11
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

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O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

16 March 2004

Date of mailing of the international search report

23/03/2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 011, no. 175 (M-596), 5 June 1987 (1987-06-05) & JP 62 006789 A (JAPAN SENSAA CORP:KK;OTHERS: 01), 13 January 1987 (1987-01-13) abstract	1,2,10
A	----- PATENT ABSTRACTS OF JAPAN vol. 2000, no. 11, 3 January 2001 (2001-01-03) & JP 2000 218383 A (SUZUKI MOTOR CORP), 8 August 2000 (2000-08-08) abstract -----	1,4,6-11

INTERNATIONAL SEARCH REPORT

Information on patent family members

International

Application No

PCT/IB 03/06076

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
DE 19644121	A	07-05-1997	DE 19644121 A1	07-05-1997
			FR 2740648 A1	30-04-1997
			JP 9172034 A	30-06-1997
			KR 256464 B1	15-05-2000
			US 6236015 B1	22-05-2001
			US 6397465 B1	04-06-2002
			US 2002000427 A1	03-01-2002
<hr/>				
JP 2002346776	A	04-12-2002	NONE	
<hr/>				
US 4906812	A	06-03-1990	DE 3941558 A1	28-06-1990
			FR 2640899 A1	29-06-1990
			GB 2226266 A	27-06-1990
			IT 1236985 B	12-05-1993
			JP 2200388 A	08-08-1990
<hr/>				
JP 62006789 6	A		NONE	
<hr/>				
JP 2000218383	A	08-08-2000	NONE	
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